



TANGANYIKA TERRITORY

DEPARTMENT OF AGRICULTURE

ANNUAL REPORT, 1942

GENERAL

Climatically 1942 was only a moderate year and in the Lake and Central provinces there was an unfortunately long dry spell between the first and second parts of the 1941-42 rainy season which was followed by exceedingly heavy precipitation. This did untold damage to maize, cotton and mtama. Throughout the Territory, apart from the Southern Province, the dry period which commenced in the middle of December 1942 has spelt disaster to the "short rain crops" and in consequence food supplies will at the best be no more than barely sufficient to carry the population through until the next harvest.

Although little time was available for planning to meet the increased demands of the Military and the Middle East for 1942, gratifying results were obtained with certain crops, such as groundnuts and rice, but difficulties in concluding marketing arrangements reduced by approximately 3,000 tons the exportable surplus of the former and the lack of incentive to sell owing to absence of luxuries, such as smart clothes, electric torches, bicycles, etc., has kept off the market large quantities of the latter, which has been largely consumed by the growers.

Towards the end of the year the Director of Agriculture was appointed Director of Agricultural Production and, although this new title does not endow the Director of Agriculture with any increased powers as regards enforcing production, it has allowed him to bring to the notice of Government a number of cases where difficulties have arisen especially with regard to non-natives in obtaining machinery or in fulfilling their labour requirements.

Two local Production Committees, those at Arusha and Moshi, functioned throughout the year and have proved of the greatest assistance both in organizing production by non-natives and in assisting this class of producers in many other ways. It was largely due to the efforts of these associations that Government adopted the policy of advances for certain crops, such as maize, wheat and pyrethrum. These advances may amount to as much as £3 per acre.

Later in the year a third Production Committee was formed in the Southern Highlands Province at Iringa.

To ensure as large a production as possible Government arranged, early in the year, guaranteed prices to producers for maize, wheat, beans, sesame, groundnuts, rice, onions and potatoes. On the whole the arrangements

functioned well but towards the end of the year food shortages in different parts of the Territory coupled with the fact that producers' pockets were full of money they were unable to spend led either to very much higher prices being paid than Government had considered economical or to producers consuming their crops themselves.

The extensive wheat requirements of the Middle East have led to the development of a scheme to plant up approximately 40,000 acres of wheat on the Masai plains around Mount Meru. The project is being financed by Government and is controlled by a committee of which the Provincial Commissioner, Northern Province, is chairman. A bulk order for some £200,000 worth of machinery was despatched to the United States of America but no machinery had been received by the end of the year.

To ensure that arrangements for food production for the requirements of the Military and for the Middle East should be properly co-ordinated throughout East Africa, an East African Production Committee has been appointed and, as a result of a number of meetings in Nairobi, has put forward a programme for production in 1943 envisaging a very large export of food crops of which Tanganyika's share was about 125,000 tons—our efforts being mainly concentrated on rice, groundnuts and mtama.

At the time of compiling this report, however, the indications are that there will be a very serious shortfall owing to unfavourable weather conditions.

In order to provide the necessary propaganda and supervision of the increased planting programme the number of Agricultural Instructors has been increased from 400 to 800. Unfortunately most of these men have only been able to be given the most rudimentary training, but so far reports indicate that they are performing extremely useful work.

NOTES ON THE CHIEF EXPORT CROPS

Sisal.—During the year production amounted to 99,020 tons and the exports from the Territory reached the figure of 136,237 tons, valued at £2,631,367. This large increase in exports over the previous record of 101,400 tons in 1938 was almost entirely due to the shipment of stocks which had accumulated since the war. The year ended with a minimum carry-over of barely a month's production.

It was "all-out" production in 1942 and in view of the time necessary to change-over from restriction of output to full-steam ahead the fact that the year's production was only 9,000 tons less than the estimate of 108,000 is gratifying.

It became obvious early in the year that the replacement of worn-out machinery and an adequate labour supply were the limiting factors—both have now been placed on a more satisfactory basis but new machinery and spare parts are still coming forward only very slowly.

The Inspectors employed under Sisal Control visited every estate at least once a month and with the full support of producers a noticeable improvement in the quality of the fibre produced can be recorded.

To meet increased costs of production, especially those connected with labour, the price paid by the Ministry of Supply for all grades has been increased from the 1st January 1943, by £4 per ton.

Coffee.—Exports of coffee during 1942 amounted to 14,828 tons valued at £656,695 compared with 13,667 tons and £448,000 during the previous year.

The boom in coffee continued and increased throughout the year and the demand was always greater than the supply so that towards the end of the year selected parcels of Kilimanjaro Native Co-operative Union coffee sold for over £100 per ton in Nairobi.

A supply of Tanganyika coffee was again required by His Majesty's Government but once more arrangements were only finalized when practically the entire crop had been disposed of. It cannot be emphasized too strongly that, if Tanganyika coffees are required in the United Kingdom, it is essential that the actual requirements should be known before the Tanganyika coffee season opens in July.

It was necessary late in the year to introduce complete Government purchase and control of hard coffees so that bulk orders for the supply of these types for the Military and the Middle East might be available. Starting as it did in the middle of the "off-season" the control has functioned well. The test will come in the middle of 1943 when upwards of 1,000 tons a month will require to be handled under the primitive conditions which have always prevailed in Bukoba.

It is pleasing to record that at last the Native Authorities in Bukoba have to some extent woken up to their responsibilities and a considerable improvement can be recorded, which as a consequence of the drastic pruning necessary must result unfortunately in a short crop for 1943 but with much greater promise for the following years.

Cotton.—Cotton exports were equivalent to 44,000 bales valued at £640,843 compared with 65,145 bales and £787,717 for 1941. The actual production in 1942 was 51,017 bales, a comparatively poor year—a clear demonstration that the present type of cotton, especially that grown in the Lake Province, is not the ideal for the general climatic conditions which prevail in that area.

During the year the price of cotton in Bombay, which proved to be the sole market, rose very steeply and producers during the last quarter received approximately 45 cents a kilo for seed cotton, the highest price recorded for many years.

The marketing of the Lake Province crop, the price of which was based on the Kampala market for Bombay, functioned quietly with a steady bullish tendency but when the season opened for the rest of the territorial cotton in August political conditions in Bombay were so unsettled that the Cotton Exchange was closed and no prices quoted.

Under the circumstances ginners were unwilling to purchase cotton from producers unless Government guaranteed them against loss, and at the time conditions were such that £2 a bale was considered necessary to cover the risk.

This insurance, which was collected in the form of an export tax, has proved unnecessary as the demand for cotton in Bombay remains unabated.

Late in the year His Majesty's Government intimated that it was prepared to purchase the whole East African cotton crop for a minimum of three years or for the duration of the war and for one year after at a fixed price. Details for the disposal of Tanganyika's 1943 crop had not been settled at the end of 1942 but it had been found possible to notify all producers that the price of

seed cotton would be fixed at about ten cents per pound or twenty-three cents per kilo. Without such an assurance it would have been difficult to prevent the expansion of cotton growing at the expense of food production vital for the needs of the population and for the furtherance of the war effort.

Groundnuts.—Exports amounted to 13,193 tons valued at £214,596—in view of the great efforts made to increase the exportable surplus of this crop up to 20,000 tons this result is disappointing but it should be borne in mind that delays in finalizing marketing arrangements led to at least 3,000 tons being consumed locally and also approximately 2,000 tons above normal requirements were retained as seed for increased production.

Sesame.—The effects of the lack of demand for sesame during the first two years of the war continued during 1942 when exports totalled 3,563 tons valued at £45,935 compared with 3,018 tons and £33,294 in the previous year.

Copra.—The 3,700 tons of copra worth £44,667 does not give a true picture of the total crop, which was probably at least twice as great. Military and civil demands have resulted in greatly increased manufacture of edible oils and soaps.

Work on the improvement of the preparation of this crop has been disheartening owing to buyers showing themselves unwilling to pay more for the higher quality article. Under present circumstances where the trade is almost entirely in the hands of small Indian traders, low-grade copra with its higher moisture content and haphazard, careless preparation may be sold for a greater price than the drier and superior kiln-dried product.

When opportunity permits the conditions under which this crop is harvested must be thoroughly overhauled by Government and it would appear that, as grading presents great difficulties owing to the numerous ports of shipment along the Tanganyika coast, the appointment of one or more reputable buying agents will be the first essential to a permanent improvement in quality.

Grains.—A great drive was made to increase the exportable surplus of grain crops but the weather, generally speaking, was unfavourable to grain production, heavy rains followed by too long, hot dry spells resulting in only moderate crops. A considerable increase in local consumption due to very much greater numbers of employed labour and cash in the hands of producers being very plentiful can be recorded. The export of rice amounted to 17,948 tons, only 17 tons below the record of the previous year.

Exports of millets and sorghum amounted to 3,348 tons, while exports of wheat and maize were 2,166 and 713 tons respectively.

Food shortages in the Central Province where famine conditions developed and in certain other small areas of the Territory were reported in the later months of the year.

Tea.—Tea exports beat the previous record and just over a million pounds of made tea was exported. The tea industry in Tanganyika is now firmly on its feet and a large increase in production may be confidently anticipated over the next few years.

Sugar.—The amount of sugar exported fell to 4,380 tons, not because of any decrease of production, but due to increased local consumption.

Tobacco.—The Songea native tobacco industry, which produces a light fire-cured type of leaf, suffered from an adverse season and a poor crop. In view of the greatly increased demand for manufacture in East Africa, a concession was made to growers in purchasing a fourth grade.

In view of the excellent prices prevailing, the factory grading standards were greatly tightened. Three hundred and twenty-seven tons were purchased from growers of which 310 tons were available for resale.

The non-native flue-cured tobacco industry in Iringa enjoyed a favourable season and a good market and production increased to 814,292 pounds. Almost half of this was graded at the central factory. It must be observed, however, that a considerable speculative interest, owing to the very high prices prevailing, has entered the industry and there is a long way to go before all the growers can be made to realize that the future of this industry depends on constant improvement in quality.

The value of unmanufactured tobacco exports were £80,998 and amounted to 1,702,588 pounds.

Pyrethrum.—Pyrethrum exports amounted to 305 tons of which 135 tons was produced in the Southern Highlands Province and 170 tons in the Northern Province. Growers were very dissatisfied with the prices which prevailed during the year and the new 1943 price of one shilling per pound guaranteed to growers by His Majesty's Government for all first grade flowers delivered at the factory should prove a splendid stimulus to increased production.

In Tanganyika, the fact that so large a proportion of our planters were interned on the outbreak of war and also that practically every able-bodied Britisher of military age joined the forces has proved a grave obstacle to any large-scale extension of non-native crops and this applies especially to pyrethrum.

Other Crops and Products.—Exports of beeswax fell to 348 tons, gums (copal and arabic) to 904, while ghee increased from 1,125 tons in 1941 to 1,385 tons in 1942.

Owing to shortage of shipping space there was an abnormally high carry-over of beeswax at the end of the year and the actual production of the Territory is estimated at 410 tons valued at £67,650. In 1941 the export was 712 tons with the record value of £115,708. In 1942 the production has fallen to the lowest since 1934. The Western Province which is the largest producer showed the greatest reduction in quantity, Central, Eastern and Southern provinces being about average.

PRODUCTION OF BEESWAX BY PROVINCES

		1941		1942
Western	...	324 tons	...	134 tons
Southern	...	249 „	...	149 „
Central	...	145 „	...	102 „
Eastern	...	46 „	...	25 „

The shortfall in production of the Western Province is believed to be due mainly to bad rainfall distribution which reduced the nectar flow, also to the increase in the number of hives opened for honey early in the season, before wax production is complete, due to the increased demand for honey, and finally to the recruitment for military duties of many of the more active men who travel further afield in search of wax.

All wax was purchased by the Government from the exporters at the coast at a controlled price and the retail price was fixed in each district.

Extra staff was employed during the year to give instruction in the best methods of preparing wax and to encourage the construction of more beehives.

Vermin, Pests and Diseases.—No swarms of locusts invaded the Territory, this being the first clear year since 1928. There was slight activity early in the year in certain swampy areas known to harbour residual swarms from previous years, but no damage to crops was reported.

There were no serious outbreaks of insect pests during the year although damage to grain crops in the Central Province by grasshopper and green-bugs reduced the quantity of a badly needed harvest.

Sugar-cane on an estate in Moshi District suffered from attack by white grubs. Adult beetles emerging in October have been identified by the Imperial Institute of Entomology as *Cochliotus melolonthoides* Gerst., belonging to the family Melolonthidae.

The grey field mouse was in evidence in a number of localities on the coastal plain from Usambara to the Rufiji, but the numbers present were more indicative of local increase rather than of migrations.

Diseases of wheat and vegetables, particularly potatoes, were investigated. Late blight was found severe in potatoes in the Moshi, Arusha and Mbulu districts, other areas being apparently unaffected as yet. Information on all diseases observed was brought to the attention of the growers. On pawpaws a rot of roots, stems and fruits was reported upon. On French beans *Sclerotinia* rot (*S. sclerotiorum*) was found on one plantation. This disease can affect many crops but every effort was made to control it.

Wheat areas in the Northern Province were examined and their diseases described: no new disease records were made.

The experiments on the particular type of yellowing of coffee in the Engare Olmotoni area were discontinued as labour was unobtainable. The spraying experiments against *Hemileia* of coffee were discontinued as no improvement of crop was obtained after several years' treatments—this is probably accounted for by the rather high elevation of the fields, and by the presence of factors in addition to *Hemileia*, which handicap the trees.

The long rainy season was particularly conducive to the appearance of plant pathogens; the identities of diseases not previously recorded are being confirmed and they will be reported upon separately.

SOIL CONSERVATION

Steady progress was made with soil conservation work and anti-erosion measures in 1942. The drives in the Central Province and on Kilimanjaro were continued and the work generally placed on a better basis by the trial organization in a number of districts of a team of African Agricultural Instructors being employed throughout the year on this work, instead of, as previously, combining it with their other duties.

The success which has attended this re-organisation is being developed throughout the Territory as Instructors can be spared from other work and trained.

The fact that during the year the services of Mr. R. R. Staples, Botanist, Veterinary Department, have been more generally available for advice throughout the Territory has led to a number of comprehensive schemes for soil conservation being jointly put forward by the local officers of the Agricultural Forestry and Veterinary departments working in close consultation with the Provincial Administration and these schemes should be speedily put into effect as the necessary personnel is available.

EXPERIMENTAL WORK

The activities of the Sisal Experimental Station at Mlingano were maintained. The work of the Coffee Research and Experiment Station at Lyamungu has been curtailed but every effort has been made to avoid dislocation of progress on the more important field experiments both on and off the station.

The secondment of the Chief Scientific Officer to take charge of food distribution throughout the Territory will not, to any appreciable degree, affect the scope of the work at the station itself, but it may be necessary to curtail outside work which, on account of shortage of man power on the estates themselves, has presented considerable difficulties during the past twelve months.

Work on the other experiment stations of the Department, viz., Ukiriguru, Nyamahona, Lubaga, Tumbi, Mwanhala, Morogoro, Kingolwira and Iheme has continued uninterrupted throughout the year and a new rice station has been opened in the Southern Province at Mingoyo.

The training school which is interlocked with the station at Ukiriguru has proved extremely successful and is passing out a most promising type of African Agricultural Instructor.

The loan to Tanganyika of four officers of the Empire Cotton Growing Corporation has made it possible to continue experiments at the cotton stations in the Lake and Eastern provinces.

The Department of Agriculture has now had experience of over three years of work under war conditions. The work of its officers has been greatly increased, not only in connection with agricultural duties with regard to increased production for the war effort but also in many other directions, chiefly connected with economic control.

Conditions under which their duties have been carried out have become increasingly difficult and I wish to place on record my sincere thanks and admiration for the unstinted efforts they have always made in whatever they have been called upon to do.

Dar es Salaam,
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R. W. R. MILLER,
Director of Agriculture

